

CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-65. (Canceled)

66. (Currently Amended) A hardware upgrade for a set top terminal for use with a television program delivery system with menu selection of programs, the set top terminal having a microprocessor and microprocessor instructions for prompting generation of menus, the hardware upgrade comprising:

an upgrade interface configured for insertion within an expansion card interface slot of a set top terminal for providing access to a set top terminal microprocessor bus coupled to the set top terminal microprocessor and providing data to the set top terminal microprocessor via the set top terminal microprocessor bus;

a communications port to provide communication between the hardware upgrade and a headend; and

a hardware upgrade microprocessor, coupled to the upgrade interface, the hardware upgrade microprocessor configured for communicating directly with the set top terminal microprocessor through the set top terminal microprocessor bus via the upgrade interface;

wherein the hardware upgrade microprocessor provides enhanced functions to the set top terminal microprocessor through communication with the set top terminal microprocessor using the upgrade interface coupled to the set top terminal microprocessor bus according to receive interactive input received from a subscriber, generate responses based on the received interactive input and for provide the generated responses to the microprocessor of the set top terminal, the hardware upgrade microprocessor configured to communicate directly with a headend via the communications port to receive upgrade data to provide the enhanced functions to the set top microprocessor in response to the interactive input received form the subscriber.

67. (Previously Presented) The hardware upgrade of claim 66 further comprising memory, coupled to the hardware upgrade microprocessor, for storing data therein and processing circuitry, coupled to the hardware upgrade microprocessor, wherein the hardware upgrade microprocessor accesses the memory and controls the processing circuitry to cause the processing circuitry to provide enhanced functions to the set top terminal microprocessor via the upgrade interface and wherein the processing circuitry includes a hardware upgrade modem for providing communication between the hardware upgrade and one or more headends.

68. (Previously Presented) The hardware upgrade of claim 67, wherein the processing circuitry includes a modulator and demodulator to add a data modulation and demodulation function to the set top terminal microprocessor such that data may be retrieved by the modem of the hardware upgrade from the one or more headends and stored in the memory of the hardware upgrade.

69. (Previously Presented) The hardware upgrade of claim 67, wherein the modem of the hardware upgrade retrieves information from an interactive service by accessing an on-line database enabling the set top terminal microprocessor to engage in transactions using two-way communications over the modem of the hardware upgrade with the interactive service via submenus provided by the hardware upgrade microprocessor as an overlay to a program displayed by the set top terminal microprocessor.

70. (Previously Presented) The hardware upgrade of claim 66, wherein the upgrade interface is a card insertable interface enabling insertion into a card receiving slot of the set top terminal,

71. (Previously Presented) The hardware upgrade of claim 67, wherein the modem of the hardware upgrade is capable of communicating with the interactive service outside of the television program delivery system.

72. (Previously Presented) The hardware upgrade of claim 71, wherein the interactive service is selected from a group consisting of home shopping, airline reservations, news, financial information, classified advertisements, home banking, and interactive teletext.

73. (Currently Amended) A set top terminal for use with a television program delivery system with menu selection of programs, the set top terminal having a microprocessor and microprocessor instructions for prompting generation of menus and comprising:

- a receiver adapted to receive programs; and

- a first hardware upgrade comprising:

- a communications port to provide communication between the hardware upgrade and a headend;

- an upgrade interface configured for insertion within an expansion card interface slot of a set top terminal for providing access to a set top terminal microprocessor bus coupled to the set top terminal microprocessor and providing data to the set top terminal microprocessor via the set top terminal microprocessor bus; and

- a hardware upgrade microprocessor, coupled to the upgrade interface, the hardware upgrade microprocessor configured for communicating directly with the set top terminal microprocessor through the set top terminal microprocessor bus via the upgrade interface;

- wherein the hardware upgrade microprocessor provides enhanced functions to the set top terminal microprocessor through communication with the set top terminal microprocessor using the upgrade interface coupled to the set top terminal microprocessor bus according to interactive input received from a subscriber, generate responses based on the received interactive input and for provide the generated responses to the microprocessor of the set top terminal, the hardware upgrade microprocessor configured to communicate directly with a headend via the communications port to receive upgrade data to provide the enhanced functions to the set top microprocessor in response to the interactive input received form the subscriber.

74. (Previously Presented) The set top terminal of claim 73 further comprising memory, coupled to the hardware upgrade microprocessor, for storing data therein and processing circuitry, coupled to the hardware upgrade microprocessor, wherein the hardware upgrade microprocessor accesses the memory and controls the processing circuitry to cause the processing circuitry to provide enhanced functions to the set top terminal microprocessor via the upgrade interface and wherein the processing circuitry includes a hardware upgrade modem for providing communication between the hardware upgrade and one or more headends.

75. (Previously Presented) The set top terminal of claim 74, wherein the processing circuitry includes a modulator and demodulator to add a data modulation and demodulation function to the set top terminal microprocessor such that data may be retrieved by the modem of the hardware upgrade from the one or more headends and stored in the memory of the hardware upgrade.

76. (Previously Presented) The set top terminal of claim 74, wherein the modem of the hardware upgrade retrieves information from an interactive service by accessing an on-line database enabling the set top terminal microprocessor to engage in transactions using two-way communications over the modem of the hardware upgrade with the interactive service via submenus provided by the hardware upgrade microprocessor as an overlay to a program displayed by the set top terminal microprocessor.

77. (Previously Presented) The set top terminal of claim 73, wherein the upgrade interface is a card insertable interface enabling insertion into a card receiving slot of the set top terminal,

78. (Previously Presented) The set top terminal of claim 74, wherein the modem of the hardware upgrade is capable of communicating with the interactive service outside of the television program delivery system.

79. (Previously Presented) The set top terminal of claim 78, wherein the interactive service is selected from a group consisting of home shopping, airline reservations, news, financial information, classified advertisements, home banking, and interactive teletext.

80. (Canceled)

81. (Previously Presented) The set top terminal of claim 73 further comprising:
one or more additional hardware upgrades connected to the terminal.

82. (Previously Presented) The set top terminal of claim 81, wherein at least one of the one or more additional hardware upgrades is selected from the group consisting of an audio program reception hardware upgrade, an interactive hardware upgrade that receives interactive subscriber input and produces interactive output, and a storage hardware upgrade.

83. (Currently Amended) A system comprising:
a television program delivery system adapted to deliver television program signals;
and
a set top terminal having a microprocessor and microprocessor instructions for prompting generation of menus and comprising:
a receiver adapted to receive at least some of the television program signals; and
a hardware upgrade comprising:
a hardware communications port to provide communication between the hardware upgrade and a headend;
an upgrade interface configured for insertion within an expansion card interface slot of a set top terminal for providing access to a set top terminal microprocessor bus coupled to the set top terminal microprocessor and providing data to the set top terminal microprocessor via the set top terminal microprocessor bus; and
a hardware upgrade microprocessor, coupled to the upgrade interface, the hardware upgrade microprocessor configured for communicating directly with the set top terminal microprocessor through the set top terminal microprocessor bus via the upgrade interface;
wherein the hardware upgrade microprocessor provides enhanced functions to the set top terminal microprocessor through communication with the set top terminal microprocessor using the upgrade interface coupled to the set top terminal microprocessor bus according to interactive input received from a subscriber, generate responses based on the received interactive input and for provide the generated responses to the microprocessor of the set top terminal, the hardware upgrade microprocessor configured to communicate directly with a headend via the hardware communications port to receive upgrade data to provide the enhanced functions to the set top microprocessor in response to the interactive input received from the subscriber.

84. (Previously Presented) The system of claim 83 further comprising memory, coupled to the hardware upgrade microprocessor, for storing data therein and processing circuitry, coupled to the hardware upgrade microprocessor, wherein the hardware

upgrade microprocessor accesses the memory and controls the processing circuitry to cause the processing circuitry to provide enhanced functions to the set top terminal microprocessor via the upgrade interface and wherein the processing circuitry includes a hardware upgrade modem for providing communication between the hardware upgrade and one or more headends.

85. (Currently Amended) A method for delivering television programs through a television program delivery system with menu selection of programs, comprising:

receiving subscriber input at a hardware upgrade card from a set top terminal;
providing a communications port to provide communication between the hardware upgrade and a headend;

providing an upgrade interface to the hardware upgrade card, the upgrade interface being configured for insertion within an expansion card interface slot of the set top terminal for providing access to a set top terminal microprocessor bus coupled to the set top terminal microprocessor and providing data to the set top terminal microprocessor via the set top terminal microprocessor bus; and

providing a hardware upgrade microprocessor, coupled to the upgrade interface, the hardware upgrade microprocessor configured for communicating directly with the set top terminal microprocessor through the set top terminal microprocessor bus via the upgrade interface,

wherein the hardware upgrade microprocessor provides enhanced functions to the set top terminal microprocessor through communication with the set top terminal microprocessor using the upgrade interface coupled to the set top terminal microprocessor bus according to interactive input received from a subscriber, generate responses based on the received interactive input and for provide the generated responses to the microprocessor of the set top terminal, the hardware upgrade microprocessor configured to communicate directly with a headend via the communications port to receive upgrade data to provide the enhanced functions to the set top microprocessor in response to the interactive input received form the subscriber.